

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An engine having Sstructure to shorten the total length of piston and liner by inhalation of the 2-4 times compressed air or the mixed fuel gas as ~~the~~ atmospheric pressure-planned and heated, into the liner, with the constant temperature and pressure.

2. Currently Amended) An engine according to claim 1 having Sstructure to shorten-reduce the movement area of crankshafts by shortening radii of gyration of crankshafts, and to reduce weight of crankshaft.

3. Currently Amended) An engine according to claim 1 having Sstructure to lighten its own weight of engine by using shortening liners and shortening radii of gyration of crankshaft to shorten cylinder block.

4. Currently Amended) An engine according to claim 1 having Sstructure to reduce the engine weight and the

crankshafts, decreasing of the capacity of the oil pan, and the decreasing of the lubricating oil.

5. Currently Amended) An engine according to claim 1 having a structure to place the air tank which stores compressed and heated air or the mixed fuel gas temporarily under given conditions and to make the gases inhale into cylinder liner.

6. Currently Amended) An engine according to claim 1 having a form of compressor for compressing the air or the mixed fuel gas to 2-4 times or more as the specified pressure, structure of valve for controlling a constant temperature of the compressed air or mixed gas and provision into the tank for storing temporarily, and structure of the temperature regulator.

7. Currently Amended) An engine according to claim 6 having a structure to operate the temperature regulator according to claim 6, comprising;

infusing the natural gas or the hydrocarbon gas such as petroleum gas into the peroxidized exhaust gas with high temperature through the infusion tube and mixing evenly,

reacting the environmentally harmful peroxidized nitrogen gas and carbon sulfide particle with the carbon molecules and the hydrogen molecules, reducing and resolving into clean nitrogen gas, water vapor, and ~~sulfur dioxide~~ other harmless gases, and

pressing the exhausted gas.

8. (Currently Amended) An engine according to claim 1 having ~~the~~ technology that enables the improvement of degree of freedom of the valve operation at the same time as the simplification of the cylinder head by controlling the movement of the induction valve and the exhausted valve by driving oil-hydraulic pump, operating the valve by in-vehicle microcomputer ~~at the starting~~ in faithful accordance with the planned diagram, and not using valve operation by the camshaft.